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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/313,861	12/06/2002	Karl Schuh	157587-0004	9272

1622 7590 06/28/2005
IRELL & MANELLA LLP
840 NEWPORT CENTER DRIVE
SUITE 400
NEWPORT BEACH, CA 92660

EXAMINER

MCLEAN MAYO, KIMBERLY N

ART UNIT	PAPER NUMBER
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2187

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/313,861	Applicant(s) SCHUH ET AL.	
	Examiner Kimberly N. McLean-Mayo	Art Unit 2187	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 7-9, 11, 14-16, 20-23, 25-28, 30, 32, 33, 37-39, 41-44, 48 and 49 is/are rejected.
- 7) ☒ Claim(s) 4, 6, 10, 12-13, 17-19, 24, 29, 31, 34-36, 40, 45-47 and 50-52 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 December 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/24/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The enclosed detailed action is in response to the Application submitted December 6, 2002 and the Information Disclosure Statement submitted on April 28, 2003.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 21, 25-26, 28, 30, 32, 37, 39, 41-42, 44 and 48 are rejected under 35 U.S.C. 102(b) as being anticipated by Holmedahl et al. "Cooperative Caching of Dynamic Content on a Distributed Web Server" – posted on www.citeseer.com, 1998).

Regarding claims 21, 25, 32, 37, 41-42 and 48, Holmedahl discloses a distributed cache module (Figure 1 – software controlling the system in Figure 1, which is distributed among all the modules/servers) for a system that includes a first server that has a first cache and a second server that has a second cache, the second cache containing a file block (data) (Figure 1), wherein the first distributed cache module resides in the first server and the first distributed cache module requests and receives the file block (effective ACK w.r.t claim 42) from the second cache of the second server (Figure 2; effective join message w.r.t claim 37) and wherein the first distributed cache module contains a prediction of a location of the file block in the second cache of the second server (page 7, 2nd paragraph, lines 2-3; prediction is made via the directory tables).

Regarding claims 26 and 30, Holmedahl discloses a first server that includes a first cache (Figure 1, one of the server nodes and its corresponding internal cache component) and a first distributed cache module (HTTP module and the Cacher Module; Page 4, section 4), the first cache contains a file block [data/file blocks are stored on all the caches]; and a second server that includes a second cache (Figure 1, another one of the server nodes and its corresponding internal cache component) and a second distributed cache module requests (HTTP module within the second server node; each node contains a HTTP module) and retrieves the file block from the second cache of the second server (Figure 2), wherein the first distributed cache module contains a prediction of a location of the file block in the second cache of the second server (page 7, 2nd paragraph, lines 2-3; prediction is made via the directory tables).

Regarding claims 28, 39 and 44, Holmedahl discloses the first and second distributed cache modules each having a unique member ID in a context (node ID).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1, 3, 5, 7, 9, 11, 14-15 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carroll et al. (USPN: 6,327,630) in view of Johnson (PGPUB: US 2004/0064650).

Regarding claims 1, 7, 14-15 and 20, Carroll discloses a distributed system (C 2, L 49-51) that includes a first server (processing element servicing a request) and a second server (second processing element servicing a request), comprising a first distributed module that resides in the first server and transfer a message and a logical timestamp (C 1, L 51-67); and a second distributed module that resides in the second server and receives the message, the second distributed module delays a transfer of the message if the second server has not received all preceding logical timestamps (C 1, L 51-67; Abstract). Carroll does not explicitly disclose a distributed cache system wherein each distributed module comprises a cache. However, Johnson discloses a distributed cache system wherein each distributed module comprises a cache (Figure 1; Abstract; section [0007], lines 1-2; Section [0043], lines 4-13). Johnson teaches that this system provides a timely response rate for returning information to user request (section [0004]). One of ordinary skill in the art at the time the invention was made would have recognized the improved performance benefits of Johnson's system and would have been motivated to use such a system with the teachings of Carroll for obvious for the desired purpose of improved performance afforded by the distributed caching modules.

Regarding claims 3 and 9, Carroll and Johnson disclose the distributed cache modules having a unique member ID in a context [group] (Johnson – Section [0025]).

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Regarding claims 5 and 11, Carroll and Johnson disclose a prediction of a location (Section [0043], lines 4-13; Section [0024-0025] - cache server ID in the directory of one of the distributed caches corresponding to an entry in another one of the distributed caches).

6. Claims 2, 8 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carroll et al. (USPN: 6,327,630) in view of Johnson (PGPUB: US 2004/0064650) as applied to claims 1, 7 and 15 and further in view of DeLima et al. (PGPUB: US 2002/0143981).

Carroll and Johnson disclose the limitation cited above, however, Carroll and Johnson do not disclose the first distributed cache module having a cookie. DeLima teaches the concept of using cookies (Abstract) in a distributed cache system (section [0045], lines 5-8). DeLima teaches that this feature provides improved network exchanges. Hence, it would have been obvious to one of ordinary skill in the art to use cookies in the system taught by Carroll and Johnson for the desirable purpose of improved network exchanges.

7. Claims 22-23, 27, 33, 38, 43 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holmedahl et al. "Cooperative Caching of Dynamic Content on a Distributed Web Server" – posted on www.citeseer.com, 1998) in view of DeLima et al. (PGPUB: US 2002/0143981).

Regarding claims, 22, 27, 33, 38, 43 and 49, Holmedahl discloses the limitations cited in claims 21 and 26, 32, 37, 42, 48, however, Holmedahl does not disclose the first distributed cache module having a cookie. DeLima teaches the concept of using cookies (Abstract) in a distributed cache system (section [0045], lines 5-8). DeLima teaches that this feature provides improved

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network exchanges. Hence, it would have been obvious to one of ordinary skill in the art to use cookies in the system taught by Holmedahl for the desirable purpose of improved network exchanges.

Regarding claim 23, Holmedahl discloses the first and second distributed cache modules each having a unique member ID in a context (node ID).

Allowable Subject Matter

8. Claims 4, 6, 10, 12-13, 17-19, 24, 29, 31 and 34-36, 40, 45-47 and 50-52 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lowery – PG PUB: US 2002/0107935 – join message and cache community

Buddhikot - PG PUB : US 2002/0029282 – distributed data file over a plurality of caches

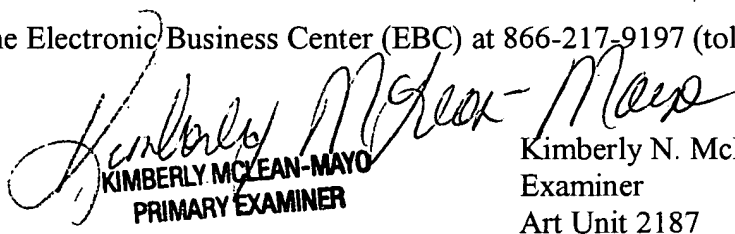
Dahlin – PG PUB: US 2002/0184403 – distributed cache and cooperative caching

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly N. McLean-Mayo whose telephone number is 703-308-9592. The examiner can normally be reached on Tues, Thr, Fri (10:00 - 6:30).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on 703-308-1756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


KIMBERLY MCLEAN-MAYO
PRIMARY EXAMINER

Kimberly N. McLean-Mayo
Examiner
Art Unit 2187

KNM

June 24, 2005